

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 20-28, 30-36, 38-45, 47-51 and 53-60 are pending in the present application. Claims 29, 37, 46 and 52 have been cancelled and claims 20, 30, 38, 47, 53 and 54 have been amended by the present amendment.

In the outstanding Office Action, claims 20-60 were rejected under 35 U.S.C. §103(a) as unpatentable over Na, et al. in view Slattery, et al., which is respectfully traversed.

Independent claim 20 includes a combination of steps and is directed to a method of generating a transport stream. The method includes reproducing an MPEG transport stream composed of a series of transport packets carrying data from a recording medium for transferring the MPEG transport stream through a digital interface, inserting program managing information for managing presentation of the data carried in the reproduced MPEG transport stream when a discontinuity occurs in the MPEG transport stream, and transferring the MPEG transport stream including the inserted program managing information through the digital interface. Independent claims 30, 38, 47, 53 and 54 include similar features in a varying scope.

These features are supported at least by Figures 4-7. For example, Figure 4 illustrates a TS MUX 500 included in the HDVD manufacturing apparatus shown in Figure 4. As noted in paragraph [035], there may be a time interval in which audio and video data packets will not be delivered to a presentation apparatus such as a digital television. Therefore, the microcomputer 39 of the HDVD player 300 (see Figure 2) detects the interval while reproducing the recorded program or title of a HDVD 31, then outputs the capital PSI packet produced by the to the TS

MUX 38 during the detected interval after deciding on whether the PSI package should be delivered at this interval, thereby inserting the packetized presentation managing information such as a PSI between the transport packets containing video and audio data without delaying any data packet and transferring to the digital television 200. That is, an MPEG transport stream is reproduced, program managing information is inserted into the data carried in the reproduced MPEG transport stream when a discontinuity occurs in the MPEG transport stream, and the MPEG transport stream is transferred through the digital interface. Therefore, the transport packets containing video and audio data are transferred without delay (see paragraph [035]), for example.

The Office Action indicates Na et al. teaches reproducing an MPEG transport stream composed of a series of transport packets carrying data and cites Figure 4 and column 3, lines 1-27 and teaches inserting program managing information into the reproduced MPEG transport stream and cites column 4, lines 43-51. However, it is respectfully noted Na et al. specifically teaches a PS\TS converter 318 which converts a program stream (PS) format to a transport stream (TS) format (see Figures 2 and 4 and the corresponding description in the specification, for example). This differs from the present invention which reproduces in an MPEG transport stream (not an MPEG program stream as in Na et al.) from a recording medium for transporting the MPEG transport stream through a digital interface. Further, Na et al. teaches in Figure 4 the navigation data processor 324 decoding presentation control information (PCI) of a navigation pack information provided by the PS/TS converter 318 and transmitting the obtained screen control information through the IEEE 1394 channel to the user interface manager 350.

As shown in Figure 4, the information from the navigation data processor 324 is directly transferred to the user interface manager 350 and is not inserted into the converted transport stream leaving the PS/TS converter 318. This is evidence because the apparatus in Figure 4 of Na et al. includes an MPEG-2 TS DEMUX 342 directly attached to the IEEE 1394 channel 330. There is no extracting method in Figure 4 of Na et al. to extract navigation information, because this navigation information is transferred directly to the user interface manager 350. Thus, Na et al. does not teach or suggest inserting program manager information into a transport stream as in the present invention. Slattery et al. also does not teach or suggest inserting program managing information into the MPEG transport stream and transferring the MPEG transport streams through the digital device as claimed by the present invention.

Accordingly, it is respectfully submitted independent claims 20, 30, 38, 47, 53 and 54 and each of the claims depending there from are allowable.

CONCLUSION

For the foregoing reasons and in view of the above clarifying amendments, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of record, and earnestly solicit an early issuance of a Notice of Allowance.

Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact David A. Bilodeau (Registration No. 42,325) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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